



Fire Protection — Definitions: OSHA Standard 1910.155

“This document is not intended to be totally inclusive but to highlight the information on the OSHA standard.”

This document is IFAS publication DH 1305.

Adapted by UF/IFAS from:
Fact Sheet AE-193
(Agricultural Engineering Department, Institute of Food and Agricultural Extension Service, University of Florida).
Developed by the Florida Cooperative Extension Service for the benefit of Florida's citizens.

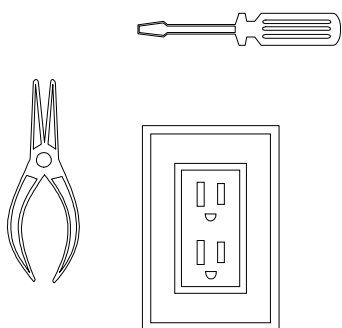
This document, a condensation of Standard 1910.155 of the Occupational Safety and Health Act, is not intended to be totally inclusive but rather to highlight the information and requirements in the complete OSHA standard that owners and managers of agricultural businesses should understand.

Definitions

- After-flame—The time a test specimen continues to flame after the flame source has been removed.
- Aqueous film forming foam (AFFF)—A fluorinated surfactant with a foam stabilizer which is diluted with water to act as a temporary barrier to exclude air from mixing with the fuel vapor by developing an aqueous film on the fuel surface of some hydrocarbons which is capable of suppressing the generation of fuel vapors.
- Approved—Acceptable to OSHA under the following criteria:
 - If it is accepted, or certified, or listed, or labeled or otherwise determined to be safe by a nationally recognized testing laboratory; or
 - With respect to an installation or equipment of a kind which no nationally recognized testing laboratory accepts, certifies, lists, labels or determines to be safe, if it is inspected or tested by another Federal agency and found in compliance with the provisions of the applicable National Fire Protection Association Fire Code; or
 - With respect to custom-made equipment or related installations which are designed, fabricated for, and intended for use by its manufacturer on the basis of test data which the employer keeps and makes available for inspection to OSHA.

For the purposes of this definition:

- Equipment is listed if it is of a kind mentioned in a list which is published by a nationally recognized testing laboratory which makes periodic inspections of the production of such equipment and which states that such equipment meets nationally recognized standards or has been tested and found safe for use in a specified manner;
- Equipment is labeled if there is attached to it a label, symbol or other identifying mark of a nationally recognized testing laboratory which makes periodic inspections of the production of such equipment, and whose labeling indicates compliance with nationally recognized standards or tests to determine safe use in a specified manner;
- Equipment is accepted if it has been inspected and found by a nationally recognized testing laboratory to conform to specified plans or to procedures of applicable codes; and
- Equipment is certified if it has been tested and found by a nationally recognized testing laboratory to meet nationally recognized standards or to be safe for use in a specified manner or is of a kind whose production is periodically inspected by a nationally recognized testing laboratory, and if it bears a label, tag or other record of certification.



- Automatic fire detection device—A device designed to automatically detect the presence of fire by heat, flame, light, smoke or other products of combustion.
- Buddy-breathing device—An accessory to self-contained breathing apparatus which permits a second person to share the same air supply as that of the wearer of the apparatus.
- Carbon dioxide—A colorless, odorless, electrically nonconductive inert gas (chemical formula CO₂) that is a medium for extinguishing fires by reducing the concentration of oxygen or fuel vapor in the air to the point where combustion is impossible.
- Class A fire—A fire involving ordinary combustible materials such as paper, wood, cloth and some rubber and plastic materials.
- Class B fire—A fire involving flammable or combustible liquids, flammable gases, greases and similar materials and some rubber and plastic materials.
- Class C fire—A fire involving energized electrical equipment where safety to the employee requires the use of electrically nonconductive extinguishing media.

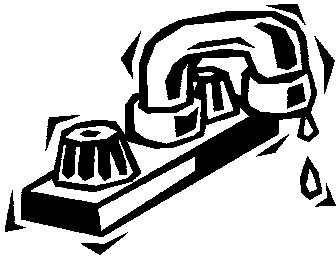


- Class D fire—A fire involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium.
- Dry chemical—An extinguishing agent composed of very small particles of chemicals such as, but not limited to, sodium bicarbonate, potassium bicarbonate, urea-based potassium bicarbonate, potassium chloride, or monoammonium phosphate supplemented by special treatment to provide resistance to packing and moisture absorption (caking) as well as to provide proper flow capabilities. Dry chemical does not include dry powders.
- Dry powder—A compound used to extinguish or control Class D fires.
- Enclosed structure—A structure with a roof or ceiling and at least two walls which may present fire hazards to employees, such as accumulations of smoke, toxic gases and heat, similar to those found in buildings.
- Extinguisher classification—The letter classification given an extinguisher to designate the class or classes of fire on which an extinguisher will be effective. (An A-B-C extinguisher can be used on Class A, B and C fires.)
- Extinguisher rating—The numerical rating given to an extinguisher which indicates the extinguishing potential of the unit based on standardized tests developed by Underwriters' Laboratories, Inc.
- Fire brigade—An organized group of employees who are knowledgeable, trained and skilled in at least basic fire fighting operations .
- Fixed extinguishing system—A permanently installed system that either extinguishes or controls a fire at the location of the system.
- Flame resistance—The property of materials, or combinations of component materials, to retard ignition and restrict the spread of flame.
- Foam—A stable aggregation of small bubbles which flows freely over a burning liquid surface and forms a coherent blanket which seals combustible vapors and thereby extinguishes the fire.
- Gaseous agent—A fire extinguishing agent which is in the gaseous state at normal room temperature and pressure. It has low viscosity, can expand or contract with changes in pressure and temperature, and has the ability to diffuse readily and to distribute itself uniformly throughout an enclosure.
- Halon 1211—A colorless, faintly sweet smelling, electrically nonconductive liquefied gas (chemical formula CBrClF_2)



which is a medium for extinguishing fires by inhibiting the chemical chain reaction of fuel and oxygen. It is also known as bromochlorodifluoromethane.

- Halon 130l— A colorless, odorless, electrically nonconductive gas (chemical formula CBrF_3) which is a medium for extinguishing fires by inhibiting the chemical chain reaction of fuel and oxygen. It is also known as bromotrifluoromethane.
- Helmet—A head protective device consisting of a rigid shell, energy absorption system and chin strap intended to be worn to provide protection for the head or portions thereof, against impact, flying or falling objects, electric shock, penetration, heat and flame.
- Incipient stage fire—A fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, Class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.
- Inspection—A visual check of fire protection systems and equipment to ensure that they are in place, charged and ready for use in the event of a fire.
- Interior structural fire fighting—The physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.
- Lining—A material permanently attached to the inside of the outer shell of a garment for the purpose of thermal protection and padding.
- Local application system—A fixed fire suppression system which has a supply of extinguishing agent, with nozzles arranged to automatically discharge extinguishing agent directly on the burning material to extinguish or control a fire.
- Maintenance—The performance of services on fire protection equipment and systems to assure that they will perform as expected in the event of a fire. Maintenance differs from inspection in that maintenance requires the checking of internal fittings, devices and agent supplies.
- Multipurpose dry chemical—A dry chemical which is approved for use on Class A, Class B and Class C fires.
- Outer shell—The exterior layer of material on the fire coat and protective trousers which forms the outermost barrier between the fire fighter and the environment. It is attached to the vapor barrier and liner and is usually constructed with a storm flap, suitable closures and pockets.
- Positive-pressure breathing apparatus—Self-contained breathing apparatus in which the pressure in the breathing zone is



positive in relation to the immediate environment during inhalation and exhalation.

- Pre-discharge employee alarm—An alarm which sounds at a set time before actual discharge of an extinguishing system so that employees may evacuate the area prior to system discharge.
- Quick disconnect valve—A device which starts the flow of air by inserting of the hose (which leads from the facepiece) into the regulator of self-contained breathing apparatus, and stops the flow of air by disconnection of the hose from the regulator.
- Sprinkler alarm—An approved device installed so that any water flow from a sprinkler system equal to or greater than that from a single automatic sprinkler will result in an audible alarm signal on the premises.
- Sprinkler system—A system of piping designed in accordance with fire protection engineering standards and installed to control or extinguish fires. The system includes an adequate and reliable water supply, and a network of specially sized piping and sprinklers which are interconnected. The system also includes a control valve and a device for actuating an alarm when the system is in operation.
- Standpipe systems.
 - Class I standpipe system—A 2½" hose connection for use by fire departments and those trained in handling heavy fire streams.
 - Class II standpipe system—A 1½" hose system which provides a means for the control or extinguishment of incipient stage fires.
 - Class III standpipe system—A combined system of hose which is for the use of employees trained in the use of hose operations and which is capable of furnishing effective water discharge during the more advanced stages of fire (beyond the incipient stage) in the interior of workplaces. Hose outlets are available for both 1½" and 2½" hose.
- Small hose system—A system of hose ranging in diameter from ⅝" up to 1½" which is for the use of employees and which provides a means for the control and extinguishment of incipient stage fires.
- Total flooding system—A fixed suppression system which is arranged to automatically discharge a predetermined concentration of agent into an enclosed space for the purpose of fire extinguishment or control.
- Training—The process of making proficient through instruction and hands-on practice in the operation of equipment, including

respiratory protection equipment, that is expected to be used and in the performance of assigned duties.

- Vapor barrier—Material used to prevent or substantially inhibit the transfer of water, corrosive liquids and steam or other hot vapors from the outside of a garment to the wearer's body.